Adabas Multifetch/Prefetch Parameter Value Change

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ITS. Database Administration would like to notify customers using Adabas Prefetch that the recommended value for the PREFETCH parameter is YES not OLD; i.e., PREFETCH=YES. The PREFETCH=OLD parameter is not compatible with NATURAL 3.1.5. If NATURAL programs are invoked with the value PREFETCH=OLD, you will receive a NAT0776 abend. It has become evident that the old parameter value creates a program failure when trying to load a Natural program into the Natural 3.1.5 bufferpool.

It is also recommended to exclude all Adabas system files (files 12, 13, and 14, for DWS files 10, 12, 13) from multifetch/prefetch function to improve multifetch/prefetch performance. If Adabas system files are not excluded then multifetch/prefetch buffers are divided between the user files and system files reducing the performance of prefetch dramatically.

The following prefetch parameter values should be the minimal requirement when using the multifetch/prefetch feature. Additional parameter values may be used as needed.

ADARUN PREFETCH=**YES**
ADARUN PREFSBL= *"see description below"*
ADARUN PREFTBL= *"see description below"*
ADARUN PREFXFIL=12,12,12,12,12,12,12,PREFXCMD=L1/L2/L3/L4/L5/L6/L9
ADARUN PREFXFIL=13,13,13,13,13,13,13,PREFXCMD=L1/L2/L3/L4/L5/L6/L9
ADARUN PREFXFIL=14,14,14,14,14,14,14,PREFXCMD=L1/L2/L3/L4/L5/L6/L9

PREFSBL : Prefetch Buffer Length per Call

Parameter	Use	Minimum	Maximum	Default
PREFSBL	Set the prefetch buffer length for one prefetch.	1024	65535	3000

PREFSBL must specify at least **twice the size of the largest record** that might be prefetched. Note that unnecessary prefetching can cause needless accesses. In addition, the nucleus keeps held ISNs for all unprocessed prefetched records in hold status following a BT or ET command. For long sequential processes, this parameter should be as large as possible unless the sequential processes are frequently interrupted with "value start" (L3/L6) or RC commands; in that case, a large value often causes records to be prefetched needlessly.

PREFTBL : Total Size of Prefetch Buffer

Parameter	Use	Minimum	Maximum	Default
PREFTBL	Set the size of the total prefetch buffer area.	6144	16777215	30000

PREFTBL specifies the size of the total prefetch buffer area for this operation. This buffer length should be large enough to hold the PREFSBL-specified value, multiplied by the number of command-ID-controlled sequential prefetches for this operation. This allows a user program to perform multiple sequential operations requiring prefetches, each with a prefetch buffer of the size specified in the PREFSBL parameter.

If the user program has a single prefetch sequence only, the PREFTBL value must be equal to or greater than the PREFSBL value. The PREFTBL-specified space is always allocated to the program.